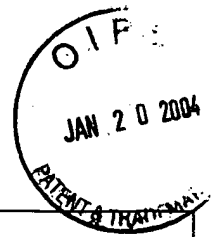


FIGURE 1.



## SoftChip Modem

### MODEM

COTS V.34 28.8kbps (upgradeable to V90 56kbps or higher as "plug in" device)



### Fixed Logic (FPGA or MP)

- Multiplexing/Demultiplexing data
- [add protocol layers as TCP/IP and H.323 to use as into an IP phone]



### DOWNLOADING

Provides FPGA content downloading



### Variable Logic (FPGA)

Functionality may be downloaded via modem

Functionality organized as sequential components in data processing stream. Component algorithms as following:

- Encode/Decode based on PGP
- DRM management with credentials accessed via modem
- ...
- Logic downloading protocol

Storing data as following:

- System identification
- System state (version and description of variable logic as ordered list of components)
- PGP public/private keys
- DRM (Digital rights management keys)



### CODEC 1

COTS G723 algorithm 6.4kbps  
Later may be embedded

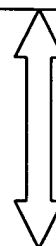
PHONE PORT



### CODEC 2

COTS G723 algorithm 6.4kbps  
Later may be embedded

PHONE PORT

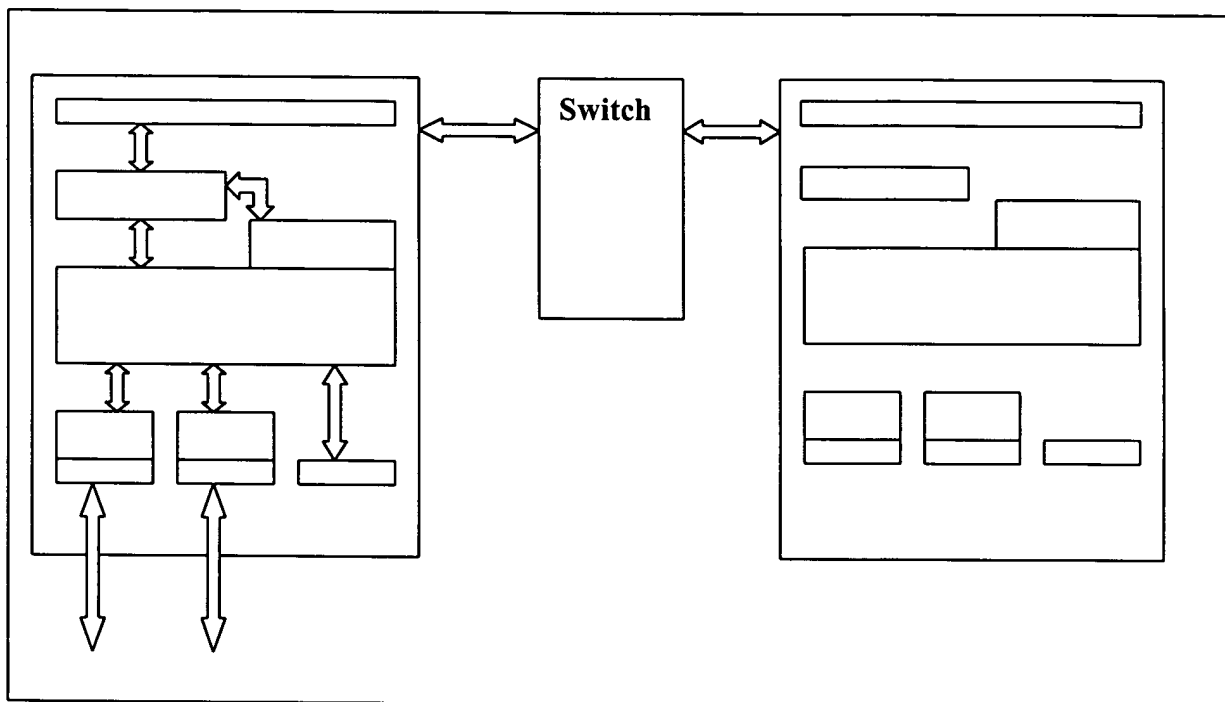


DATA PORT

**FIGURE 2.**

**Scenario #1 – one to one SCM**

No additional environment required on the central Switch side. Each SCM may have more than one voice attached to it.



**Scenario #2 – one SCM to two different destinations**

Additional multiplexing environment required on the central Switch side.

